

Green Spring Gardens Park

4603 Green Spring Road ♣ Al exandria ♣ Virginia 22312 *phone:* (703) 642-5173 ♣ *fax:* (703) 642-8095 www.greenspring.org

USING NATIVE PLANTS TO ATTRACT BUTTERFLIES AND CLEARWING MOTHS IN THE WASHINGTON, D.C. AREA AND VIRGINIA

Gardening for wildlife is a unique kind of gardening that aims to attract and sustain desirable wildlife. Using native plants to attract some of the world's loveliest insects and useful pollinators, butterflies and clearwing moths, is the focus of this information sheet.

Why Grow Native Plants for Wildlife?

Native plants are species that grow in the region in which they evolved. Gardeners who grow native plants celebrate the beauty of our native flora and help foster diversity. In addition, native plants greatly benefit wildlife. According to the National Wildlife Federation, native plants may support 10 to 50 times as many species of wildlife as non-native plants. Native plants are often essential for hosting the egg-laying and larval stages critical to the life cycle of a butterfly.

Butterfly Food Requirements

*Host plants for larvae (caterpillars) - You must first nourish caterpillars to have adult butterflies. Butterflies have very specific host plant requirements. Some butterfly species can only use one plant species as a host plant, while others can feed on several plant species. Butterflies lay eggs on or near their host plants, and caterpillars hatch from these eggs. Most caterpillars eat plenty of leaves, but some eat seeds, fruits, and/ or flowers of the host plant – do not be alarmed because they usually cause no permanent harm to plants. They molt or shed their skins several times as they grow, then pupate.

*Nectar plants for adults - When butterflies emerge from their pupa or chrysalis, they have transformed into an adult butterfly. Most adult butterflies have a long tongue to sip nectar and pollinate plants. They are less particular about nectar sources: most can feed on a wide range of plant species. Some butterflies, however, seldom nectar. The mourning cloak butterfly, for example, prefers to feed on the sap of trees, especially oaks.

Tips for Butterfly Gardening

*Plant a wide range of plants to provide flowers and caterpillar food throughout the growing season. Plant two or more plants of each species whenever possible, which makes it easier for butterflies to spot them - butterflies are attracted to masses of color and fragrance.

*A diversity of habitats is important – most adult butterflies find nectar in sunny areas, but many host plants grow in shade. Mimic nature and grow layers of vegetation – a tall tree canopy, an understory of shorter trees and shrubs, a herbaceous layer, and vines intertwined in the other layers. Woody plants are important in butterfly gardens because many trees and shrubs are host plants as well as popular overwintering sites. Do not get too excited about lawn weeds or about taller patchs of grass in your yard – many of them are host plants and nectar plants for butterflies.

*Limit or eliminate pesticide use, especially insecticides, because they kill insects. This includes pesticides that organic gardeners use, such as Bt and neem, because they also kill desirable insects.

*Leave dead foliage of many perennials up until early spring to allow for winter cover, and do not be too tidy in your spring cleanup.

*In addition to larval food and nectar, butterflies need shelter, water, warmth, and minerals. Mud puddles, damp sand, damp gravel, and rotten fruit are good sources of minerals and moisture.

An excellent source of information and pictures of the butterflies of Virginia (and other states), visit the U.S. Geological Survey butterfly web site

(www.npwrc.usgs.gov/resource/distr/lepid/bflyusa/va/toc.htm). Many of these butterflies are uncommon or rare in Virginia, which highlights the critical importance of preserving natural habitats to protect our rich biological diversity. Many of these butterflies will not be attracted to gardens, especially if these gardens are not near natural areas, and can only be enjoyed and preserved in their native habitats. Information about the abundance of butterflies in the Washington, D.C. area (Fairfax & Arlington counties and the city of Alexandria in Virginia, Montgomery and Prince George's counties in Maryland, and the District of Columbia) is from local butterfly expert Richard H. Smith (The Washington Area Butterfly Club has this information posted on their web site at http://users.sitestar.net/butterfly/d_smith/smith_~1.htm). The abundance information for Virginia as a whole is from Paul A. Opler and is published in *A Birder's Guide to Virginia* (1997). Newer information about rare species (e.g., hickory hairstreak) comes from the Division of Natural Heritage in Virginia (2001 Virginia Rare Animal List). If not stated otherwise, a given species is common in the Washington, D.C. region and in Virginia.

Moths

There are far more moth species than there are butterfly species. Many moths are not showy, but some species are very attractive. Moths have a similar life cycle to butterflies. Because of the complexity of moths, moth information in this sheet is limited to **clearwing moths**, **commonly called hummingbird moths**. The hummingbird clearwing and snowberry clearwing are found in Virginia. These moths are easy to identify with transparent patches in their wings. These late risers (unlike hummingbirds) are frequently spotted nectaring on many flowers in the summer, where they hover seemingly motionless but seldom resting.

Adult moths have various feeding habits, depending upon the species. Some moths do not feed as adults and live off food reserves obtained during the larval stage. Adult moths that feed on nectar during the day, including clearwing moths, feed on the same plants as butterflies do. However, many moths are most active in the evening (dusk, nighttime, or even dawn, depending upon the species). Night blooming native plants that attract moths include many evening primrose species (*Oenothera biennis*, *O. argillicola*, and *O. grandiflora* [a NC native, etc.]), eastern false aloe (*Manfreda virginica*), yucca (*Yucca filamentosa*), and Joe-pye weed (*E. fistulosum*, *E. purpureum*, and *E. maculatum*). Some moths also are attracted to sap that is sugary or fermented, and to overripe or rotting fruit.

An excellent source of information and pictures of the moths of Virginia (and other states), visit the U. S. Geological Survey moth web site (www.npwrc.usgs.gov/resource/distr/lepid/moths/va/toc.htm).

Recommended Plants

Most listed plants are growing in the Virginia Native Plant Garden, the Backyard Wildlife Habitat Garden, and other gardens at Green Spring. Plants are native to Virginia unless otherwise noted (the abbreviation of at least one state they are native to is given) - all plants are native to the eastern and southeastern United States.

More detailed cultural information about most of these plants is available in Green Spring's Plant Information Sheets. The following plants have ornamental value and documented (published) wildlife value. Plants that are best for naturalistic use, and not appropriate for use in more formal gardens, are noted.

Codes Used

larvae = food for caterpillars; butterfly species that feed on these plants in our region are listed. Many butterfly species have localized populations in special habitats and will not be found on listed plant species in many locations.

adult = food for adult butterflies. Some plant species have only a few butterfly species nectaring on them, while others attract numerous species. Some plant species are highly preferred for

nectaring, such as asters and goldenrods in the fall, while other plants will have an occasional butterfly nectar on them. Butterfly species usually are not listed unless a plant has only one or a few butterfly species nectaring on it. Most adult butterflies feed on nectar, but some feed on other things. For example, the hackberry emperor butterfly likes scat, carrion, sap, rotting fruit, and milkweed nectar - a real gourmet!

Sp. (plural is spp.) = species

A. BUTTERFLY PLANTS

Medium-sized to Large Deciduous Trees

- *Betula nigra (river birch) & B. lenta (sweet birch; naturalistic use) larvae of red-spotted purple, dreamy duskywing, eastern tiger swallowtail, & green comma (rare in VA in the mountains)
- *Carpinus caroliniana (American hornbeam or ironwood) larvae of eastern tiger swallowtail, red-spotted purple, & possibly striped hairstreak (rare in DC area & uncommon in VA; used as a host plant in New England & possibly here also)
- *Carya spp. (hickory) larvae of hickory hairstreak (rare in VA [VA Rare Animal List from Heritage Program in 2001] & reported in DC area by the USGS) & banded hairstreak (uncommon in the DC area & common in VA)
- *Celtis occidentalis (northern hackberry; naturalistic use)— larvae of mourning cloak, question mark, 3 uncommon spp. in both the DC area & VA (tawny emperor, hackberry emperor, & American snout), & occasionally eastern comma
- *Fagus grandifolia (American beech) harvester butterfly- an unusual sp. (rare in DC area & uncommon in VA) that feeds on woolly aphids as larvae & on aphid honeydew as adults; larvae of early hairstreak (rare in VA mostly in the mountains)
- *Fraxinus pennsylvanica (green ash) & F. americana (white ash; naturalistic use best for both) larvae of mourning cloak, eastern tiger swallowtail, striped hairstreak (rare in DC area & uncommon in VA), hickory hairstreak (rare in VA [VA Rare Animal List from Heritage Program in 2001] & reported in DC area by the USGS), & the uncommon, threatened Baltimore checkerspot (larvae of Baltimore can feed on F. americana after overwintering); also harvester butterfly (an unusual sp. rare in DC area & uncommon in VA feeds on woolly aphids as larvae & on aphid honevdew as adults)
- *Gleditsia triacanthos (honeylocust) larvae of silver-spotted skipper
- *Juglans nigra (black walnut) larvae of banded hairstreak (uncommon in DC area & common in VA)
- *Liriodendron tulipifera (tulip tree) larvae of eastern tiger swallowtail & spicebush swallowtail
- *Morus rubra (red mulberry; naturalistic use) larvae of mourning cloak
- *Ostrya virginica (American hophornbeam; hard to find commercially) larvae of mourning cloak & red-spotted purple
- *Oxydendrum arboreum (sourwood) adult of white M hairstreak (rare in both DC area & VA)
- *Prunus serotina (black cherry; naturalistic use) larvae of coral hairstreak (uncommon in DC area & common in VA), red-spotted purple, striped hairstreak (rare in DC area & uncommon in VA), eastern tiger swallowtail, spring azure, & possibly viceroy; adult (red-banded hairstreak, white M hairstreak [rare in both DC area & VA]. & red-spotted purple have been reported)
- *Quercus spp. (oak) larvae of several hairstreak & duskywing spp., & red spotted purple; red-banded hairstreak likes to eat fallen, rotting leaves; adult mourning cloak loves sap
- *Robinia pseudoacacia (black locust; naturalistic use) larvae of silver-spotted skipper, zarucco duskywing (rare in DC area; widely scattered throughout VA), clouded sulphur, & possibly dreamy duskywing
- *Salix nigra (black willow) larvae of eastern tiger swallowtail, mourning cloak, red-spotted purple, viceroy, dreamy duskwing, compton tortoiseshell (reported at Patuxent National Wildlife Refuge in MD & in one mountain county in VA), & striped hairstreak (rare in DC area & uncommon in VA); adult mourning cloak & hoary elfin (rare in VA in mountains) sometimes feed on flowers; shorter native spp. of willow also
- *Sassafras albidum (sassafras)- larvae of spicebush swallowtail & tiger swallowtail (palamedes swallowtail is normally found south of here in the coastal plain rare in DC area & common in VA)

3

- **Tilia americana* (basswood; naturalistic use) larvae of eastern tiger swallowtail, red-spotted purple, & possibly white M hairstreak (feeds on basswood in Ohio; rare in both DC area & VA); adult
- **Ulmus americana* (American elm) larvae of eastern comma, mourning cloak, question mark, painted lady (uncommon in both DC area & VA; thistles are the preferred host, but feeds on over 100 types of plants), & occasionally gray comma (uncommon in VA in mountains)

Note: eastern cottonwood (*Populus deltoides*) & aspen (*P. tremuloides*) are excellent host plants for many butterflies including viceroy, mourning cloak, red-spotted purple, dreamy duskywing, & eastern tiger swallowtail, but only leave in sites where found naturally because not very ornamental in our region.

Medium-sized to Large Evergreen Trees

- **llex opaca* (American holly) larvae of Henry's elfin (rare in DC area & uncommon in VA) & American holly azure (a coastal plain sp.; considered by the North American Butterfly Association to be a subspecies of the spring azure)
- *Juniperus virginiana (eastern red cedar) larvae of juniper or olive hairstreak (uncommon in DC area & common in VA)
- *Pinus strobus, P. taeda, & P. virginiana (white, loblolly, & Virginia pine, respectively) larvae of eastern pine elfin (uncommon in DC area & common in VA)

Small Deciduous Trees

- *Amelanchier spp. that are trees such as A. arborea, A. canadensis (sometimes shrubby), A. x grandiflora (USDA botanists says this is A. laevis), & A. laevis (juneberry, serviceberry, or shadblow) larvae of red-spotted purple; occasionally larvae of striped hairstreak (rare in DC area & uncommon in VA) & coral hairstreak (uncommon in DC area & common in VA); adult spring azure has been reported
- *Asimina triloba (pawpaw) larvae of zebra swallowtail (common in habitats with pawpaw)
- *Cercis canadensis(redbud) larvae of Henry's elfin (rare in DC area & uncommon in VA); adult
- *Cornus alternifolia (pagoda dogwood) & C. florida (flowering dogwood) larvae of spring azure found on C. florida according to USGS, but possibly other spp.; adult red-spotted purple & question mark will occasionally nectar on dogwoods & other flowers
- *Crataegus phaenopyrum, C. viridis, & C. crus-galli (naturalistic use only for the last sp.; hawthorn) larvae of red-spotted purple & possibly striped hairstreak (rare in DC area & uncommon in VA); also harvester butterfly (an unusual sp. rare in DC area & uncommon in VA feeds on woolly aphids as larvae & on aphid honeydew as adults); adult juvenal's duskywing
- *Hamamelis virginiana (witch hazel) harvester butterfly- an unusual sp. (rare in DC area & uncommon in VA) that feeds on woolly aphids as larvae & on aphid honeydew as adults
- *Magnolia virginiana (sweetbay magnolia; ranges from deciduous to evergreen, depending upon germplasm) larvae of eastern tiger swallowtail & spicebush swallowtail
- *Ptelea trifoliata (hoptree) larvae of giant swallowtail (rare in DC area & uncommon in VA); much more likely to attract larvae of eastern tiger swallowtail
- *Viburnum prunifolium (blackhaw viburnum) & V. rufidulum (southern blackhaw viburnum) larvae (spring azure); adult

<u>Deciduous and Evergreen Shrubs (evergreen shrubs noted)</u>

- *Aesculus parviflora (bottlebrush buckeye; native to SC, etc.) adult
- *Alnus serrulata (hazel alder or smooth alder; naturalistic use) harvester butterfly- an unusual sp. (rare in DC area & uncommon in VA) that feeds on woolly aphids as larvae & on aphid honeydew as adults; larvae of green comma (rare in VA in the mountains) may also feed on this *Aralia spinosa (Devil's walking stick) adult
- *Aronia arbutifolia (now **Photinia pyrifolia**, red chokeberry) & **A.** (**Photinia**) melanocarpa (black chokeberry) larvae occasionally coral hairstreak (uncommon in DC area & common in VA) & striped hairstreak (rare in DC area & uncommon in VA)
- *Ceanothus americanus (New Jersey tea; naturalistic use)— larvae of spring azure, summer azure (considered by the North American Butterfly Association to be a subspecies of the spring azure), & mottled duskywing; adult

TTY: (703) 324-3988

- *Cephalanthus occidentalis (buttonbush; naturalistic use)- adult
- *Clethra alnifolia (summersweet) adult; C. acuminata is more tree-like (for moist woodland areas naturalistic use)
- *Cornus amomum (silky dogwood; naturalistic use) & C. sericea (redosier dogwood) adult red-spotted purple & question mark will occasionally nectar on dogwoods & other flowers (USGS says larvae of spring azure on Cornus florida & shrubby spp. not specifically mentioned other references say Cornus spp.)
- *Corylus cornuta (beaked hazelnut; naturalistic use) larvae of early hairstreak (rare in VA mostly in the mountains)
- *Gaylussacia frondosa (dangleberry, a type of huckleberry; naturalistic use) & G. baccata (black huckleberry; very slow growing; naturalistic use) larvae of Henry's elfin & brown elfin (both rare in DC area & uncommon in VA); adult
- **llex decidua* (possumhaw holly), *I. glabra* (inkberry; evergreen), & *I. verticillata* (winterberry holly) larvae of American holly azure (a coastal plain sp.; considered by the North American Butterfly Association to be a subspecies of the spring azure)
- *Itea virginica (Virginia sweetspire) adult
- *Kalmia latifolia (mountain laurel; evergreen) adult of long dash (rare in VA in mountains)
- *Lindera benzoin (spicebush) larvae of spicebush swallowtail & eastern tiger swallowtail; adult spring azure & brown elfin (rare in DC area & uncommon in VA) have been reported
- *Myrica (Morella) cerifera (wax myrtle; evergreen; *M. pensylvanica* is an excellent plant that is deciduous to semi-evergreen but don't know if red-banded hairstreak can also feed on its fallen leaves) larvae of red-banded hairstreak feed on fallen, rotting leaves (butterfly is common in the DC area but the plant is not)
- *Rhododendron spp. (native azaleas): R. arborescens, R. atlanticum, R. calendulaceum, R. canescens (native to NC, etc.), R. cumberlandense, R. periclymenoides, R. prinophyllum, & R. viscosum larvae of spp. that are rare in DC area & uncommon in VA (striped hairstreak & brown elfin) or not found in DC area (occasionally gray comma uncommon in the mountains of VA); adult
- *Rhododendron carolinianum (Carolina rhododendron; evergreen; native to NC, etc.) & R. maximum (rosebay rhododendron; evergreen; naturalistic use) larvae (see above); adult *Rhus aromatica (fragrant sumac), R. copallinum (shining sumac), & R. typhina (now hirta; staghorn sumac; larvae of spring azure also on this sp.) larvae of red-banded hairstreak likes to

eat fallen, rotting leaves of the last 2 sumac spp.; adult

- *Rubus odoratus (flowering raspberry; naturalistic use) adult; this sp. is the most ornamental of the genus other spp. also attract adults (may be a host plant for some spp.)
- *Sambucus canadensis(now S. nigra subsp. canadensis) adult of banded hairstreak reported
- *Spiraea alba var. latifolia (white meadowsweet or spirea) adult (Spiraea spp. may be a host plant also reported for spring azure in West Virginia)
- *Vaccinium corymbosum & V. stamineum (blueberry; naturalistic use for the last spp. the first sp. is the large-fruited blueberry that people eat; V. pallidum is a common sp. in the wild in MD & VA (preserve it where you find it) larvae of spring azure & 3 spp. (brown elfin, Henry's elfin, & possibly striped hairstreak) that are rare in the DC area & uncommon in VA; adult *Viburnum acerifolium, V. nudum var. cassinoides, V. dentatum, & V. nudum var. nudum (viburnum) larvae (V. acerifolium & possibly other Viburnum host to Henry's elfin [rare in DC & uncommon in VA]); spring azure on viburnum in general (possibly summer azure also considered by the North American Butterfly Association to be a subspecies of the spring azure); uncommon, threatened Baltimore checkerspot can feed on V. dentatum var. lucidum (V. reconitum) after overwintering; adult

Herbaceous Perennials or Wildflowers

- *Agastache nepetoides (catnip giant hyssop) occasionally adult
- *Antennaria plantaginifolia (pussytoes) larvae of American lady & painted lady (uncommon in both DC area & VA); adult

5

- *Aquilegia canadensis (wild columbine) larvae of columbine duskywing (rare in VA in mountains)
- *Aruncus dioicus (goatsbeard) larvae of dusky azure (uncommon in VA in mountains)

- *Asclepias tuberosa (butterfly weed), A. syriaca (common milkweed; best for naturalistic use aggressive spreader), A. incarnata (swamp milkweed), A. exaltata (tall milkweed), & A. verticillata (whorled milkweed) larvae of monarch; adult of many species
- *Aster spp. that perform well in our area include A. cordifolius (Symphyotrichum cordifolium), A. divaricatus (Eurybia divaricata), A. grandiflorus (Symphyotrichum grandiflorum), A. laevis (Symphyotrichum laeve), A. lateriflorus (Symphyotrichum laeve), A. lateriflorus (Symphyotrichum laeve), A. (Symphyotrichum) novae-angliae, A. oblongifolius (Symphyotrichum oblongifolium), A. (Symphyotrichum) patens, A. (Eurybia) spectabilis, & A. umbellatus (Doellingeria umbellata) larvae of pearl crescent & silvery checkerspot (uncommon in DC area & concentrated in Piedmont & mountains of VA); small asters could host dainty sulphur rare, vagrant sp. reported by USGS in a tiny area of VA; adult
- *Baptisia australis (wild blue indigo; larvae generally reported for this sp. but some probably feed on the next sp.) & B. alba (wild white indigo; native to NC, etc.; the white-flowered B. albescens is native to VA but extremely rare) larvae of hoary edge (uncommon in both DC area & VA), wild indigo duskywing, orange sulphur, eastern tailed blue, & 2 rare sp. in VA (frosted elfin & southern dogface; 1st sp. is rare in DC area & 2nd sp. found south of Fairfax County)
- *Boltonia asteroides (boltonia, eastern doll's-daisy) adult
- *Cardamine concatenata (Dentaria laciniata; cutleaf toothwort) & C. (Dentaria) diphylla (broad-leaved toothwort; both spp. for naturalistic use) larvae of falcate orange tip (uncommon in DC area); also larvae of an uncommon sp. that is in decline (West Virginia white not in DC area but in the mountains, where it is in decline in part due to garlic mustard invasion of natural areas); adult
- **Chelone obliqua** (pink turtlehead; the best pink sp.), **C. alba** (white turtlehead; naturalistic use), **& C. Iyonii** (pink turtlehead; NC native, etc.; not nearly as good a garden plant as **C. obliqua** & often misidentified in the nursery trade) larvae of buckeye feeds on all **Chelone** spp., & the uncommon, threatened Baltimore checkerspot feeds on **C. glabra** (threatened by an explosion of the white-tailed deer population in our area deer love to eat white turtlehead plants); adult ***Cimicifuga racemosa** (black snakeroot, fairy candles)— larvae of Appalachian azure (rare sp. in DC area & uncommon in VA): adult
- *Claytonia virginica (spring beauty; naturalistic use) adult
- *Coreopsis auriculata, C. major, C. rosea (MD native, etc.), C. tripteris, & C. verticillata (New England Wild Flower Society publication says that C. verticillata 'Moonbeam' & 'Golden Showers' do not attract butterflies) adult
- *Echinacea purpurea (eastern purple coneflower) & E. pallida (pale purple coneflower; both spp. are native to central US but are naturalized in VA & need to be grown away from natural populations of VA native E. laevigata [smooth purple coneflower], which is federally endangered & much harder to grow) possibly larvae of silvery checkerspot (uncommon in DC area & concentrated in Piedmont & mountains of VA); adult
- * *Erigeron pulchellus* (Robin's plantain; naturalistic use) adult
- *Eryngium yuccifolium (rattlesnake master) adult
- *Eupatorium (Conoclinium now only for this sp.) coelestinum (mistflower), E. hyssopifolium (hyssopleaf eupatorium), E. perfoliatum (boneset), E. fistulosum, & E. purpureum (last 2 are the most common spp. of Joe-pye weed in VA E. maculatum is rare here) adult; do not grow E. rugosum (Ageratina altissima; white snakeroot) in gardens invasive, very poisonous to humans, & slightly less poisonous to livestock
- *Euphorbia corollata (wild spurge) adult visited by pearl crescent, clouded sulphur, & tawnyedged skipper (uncommon in DC area & common in VA) in an amazing Illinois prairie study conducted over several decades identifying insects that visit specific wildflowers for nectar or pollen (www.shout.net/~jhilty/index.htm)
- *Filipendula rubra (queen of the prairie) adult
- *Geranium maculatum (wild geranium)- adult
- *Helenium autumnale (helenium, sneezeweed doesn't cause sneezing!; naturalistic use) adult only in our area (larvae of dainty sulphur rare, vagrant sp. reported by USGS in a tiny area of VA)
- *Helianthus spp. (perennial sunflowers): H. angustifolius, H. decapetalus, H. divaricatus, H. hirsutus, H. maximiliani (naturalized in VA introduced from central US), & H. strumosus larvae of silvery checkerspot (uncommon in DC area & concentrated in Piedmont & mountains of VA) & painted lady (uncommon in both DC area & VA); adult; note: annual H. annuus introduced from the Plains states

TTY: (703) 324-3988

6

- *Heliopsis helianthoides (false sunflower) adult
- *Iris versicolor (northern blue flag) adult of bronze copper (rare in both DC area & VA on the eastern shore of VA according to USGS; this butterfly only occasionally visits flowers) & the long dash (rare in VA mountains)
- *Liatris aspera & L. spicata (liatris, blazing star, or gayfeather; the first sp. needs dry, open sites to thrive has not done well in heavier soils w/ crowding at Green Spring but loves my home garden, where I seldom irrigate) adult
- *Lobelia cardinalis(cardinal flower) & L. siphilitica (great blue lobelia) adult
- *Mimulus ringens (Alleghany monkey flower; naturalistic use) larvae of buckeye; adult
- *Monarda didyma (bee balm), M. fistulosa (wild bergamot), M. clinopodia (basil bee balm), & M. punctata (eastern horse mint; short-lived compared to other spp.) adult
- *Oenothera fruitcosa (sundrops) possibly attracts adult butterflies (O. pilosella, which is rare in VA, attracted 4 spp. in Illinois prairie study: www.shout.net/~jhilty/index.htm; this genus loved by moths
- *Opuntia humifusa (prickly pear) adult
- *Parthenium integrifolium (wild quinine or American feverfew; naturalistic use) adult of Diana fritillary (uncommon in VA in mountains); did not attract butterflies in Illinois prairie study
- *Penstemon hirsutus (hairy penstemon; larvae of the uncommon, threatened Baltimore checkerspot this butterfly is threatened in our area by an explosion of the white-tailed deer population deer eat host plants) & P. digitalis (white penstemon) adult for both penstemon spp.
- *Phlox divaricata, P. glaberrima, P. nivalis, P. paniculata, P. pilosa, P. stolonifera, & P. subulata (phlox) adult
- *Physostegia virginiana (false dragonhead) adult
- *Podophyllum peltatum (mayapple; naturalistic use) larvae of variegated fritillary (uncommon in both DC area & VA)
- *Pycnanthemum incanum, P. montanum, P. muticum, P. tenuifolium, & P. virginianum (mountain mint; last 2 spp. for naturalistic use) adult
- *Rudbeckia laciniata (cutleaf coneflower; larvae of silvery checkerspot uncommon in DC area & concentrated in Piedmont & mountains of VA), R. fulgida (eastern or orange coneflower), R. maxima (great coneflower; native to LA, etc.), & R. subtomentosa (native to TN, etc.) adult for all spp.
- *Ruellia humilis (wild petunia; naturalistic use) larvae of buckeye
- *Salvia lyrata (lyreleaf salvia) occasionally adult
- *Sedum ternatum (wild stonecrop) larvae of variegated fritillary (uncommon in both DC area & VA); adult
- *Senecio aureus (Packera aurea) (golden ragwort) larvae of painted lady (uncommon in both DC area & VA); possibly larvae of the northern metalmark rare in VA (in the mountains; Senecio obovatus [Packera obovata] is the preferred host)
- *Senna (Cassia) hebecarpa & S. (Cassia) marilandica (wild senna; naturalistic use reseeds readily) larvae of sleepy orange (rare in DC area & uncommon in VA), cloudless sulphur (rare in both DC area & VA), orange-barred sulphur (rare in both DC area & VA: wanders in occasionally from the south)
- *Scutellaria incana & S. serrata (skullcap) adult
- *Silphium perfoliatum (cup plant), S. laciniatum (compass plant: native to OH, etc. but naturalized in VA), S. asteriscus (southern rosinweed), S. integrifolium (prairie rosinweed; native to TN, etc.), & S. trifoliatum (whorled rosinweed) adult; tidy gardeners may prefer naturalistic use of these spp.; S. terebinthinaceum (prairie dock; beautiful plant but attracted no butterflies in Illinois prairie study no data from our area)
- *Solidago caesia, S. flexicaulis, S. roanensis, S. rugosa, & S. sphacelata 'Golden Fleece' (goldenrod; also S. juncea & S. speciosa for naturalistic use, & S. odora for dry, sandy soil) larvae of silvery checkerspot (uncommon in DC area & concentrated in Piedmont & mountains of VA); adult
- *Stokesia laevis (Stoke's aster; native to NC, etc.) adult
- *Verbena (Glandularia) canadensis (may just be naturalized in VA) & V. hastata (swamp verbena; naturalistic use) larvae of buckeye; adult
- *Verbesina (Actinomeris) alternifolia (wingstem; naturalistic use) larvae of silvery checkerspot (uncommon in DC area & concentrated in Piedmont & mountains of VA) & sometimes spring azure; adult meadow fritillary feeds on this in West Virginia (uncommon in DC area & common in VA)

- *Vernonia noveboracensis & V. gigantea (ironweed) larvae of American lady; adult
- *Veronicastrum virginicum (Culver's root) adult
- *Viola canadensis, V. pubescens, V. sororia, & V. striata (violet; tidy gardeners may just want for naturalistic use) larvae of great spangled fritillary, meadow fritillary (uncommon in DC area & common in VA), & Aphrodite fritillary (sometimes in DC area but mostly in the mountains); Atlantis fritillary & silver-bordered fritillary in the mountains of VA (both are rare in VA); adult
- *Zizia aptera & Z. aurea (golden alexanders) occasionally larvae of black swallowtail

<u>Herbaceous Perennials That Are Not Highly Ornamental But Valuable To Many Butterflies</u> (not able to find some of these plants commercially – may want to keep some if you have them)

- *Apocynum spp. (dogbane) adult (occasionally used as a host plant by monarch)
- *Boehmeria cylindrica (false nettle; doesn't sting like true nettle) larvae of red admiral, question mark, & eastern comma
- *Fragaria virginiana (wild strawberry; white-flowered & sweet fruit; do not get confused with the yellow-flowered Indian strawberry [Duchesnea indica], an invasive native of Asia fruit is not sweet) adult (sometimes larvae of a rare sp. [both in VA & globally] that is reported for northern Virginia grizzled skipper [prefer to feed on Potentilla canadensis]; larvae of painted lady [uncommon in both DC area & VA] may also feed on it prefer thistles but will feed on over 100 plants)

<u>Ornamental Grasses</u> (larvae of several spp. including common wood nymph, northern pearly eye [uncommon in both DC area & VA], & several grass skippers - no nectar for adult butterflies)

- *Andropogon virginicus (broomsedge bluestem), A. ternarius (splitbeard bluestem; needs dry, sandier soils), A. glomeratus (bushy bluestem; needs wet sites, unlike most members of this genus which like drier soils), & A. gerardii (big bluestem; naturalistic use tends to be floppy in gardens)
- *Chasmanthium latifolium (river oats: best for naturalistic use reseeds readily)
- *Elymus hystrix (Hystrix patula) (bottlebrush grass) & E. canadensis (Canada wild rye; naturalistic use for both spp.)
- *Eragrostis spectabilis (purple lovegrass; naturalistic use in dry or sandy soils)
- *Panicum virgatum (switchgrass)
- *Saccharum giganteum (Erianthus giganteus, giant plume grass) & S. brevibarbe var. contortum (E. contortus; bent-awn plume grass)
- *Schizachyrium scoparium (little bluestem)
- *Sorghastrum nutans (Indian grass)
- *Tridens flavus (purpletop or redtop; best for naturalistic use reseeds readily)
- *Tripsicum dactyloides (eastern gamagrass; naturalistic use)

<u>Ornamental Sedges</u> (including larvae of some grass skipper species - no nectar for adults; Appalachian brown not specifically listed on the following spp. but may feed on them [uncommon in the DC area & common in VA])

*Carex grayi, C. pensylvania, C. plantaginea, & C. shortiana

Note: *Carex vulpinoidea* (naturalistic use) - in wet, low areas in nature but can thrive in moist garden soil

Long-lived Vines (herbaceous ones noted; the rest woody)

- *Aristolochia macrophylla (dutchman's pipe) larvae of pipevine swallowtail (uncommon in DC area & common in VA)
- *Lonicera sempervirens (trumpet honeysuckle) adult
- *Mikania scandens (climbing hempweed: herbaceous) adult
- *Passiflora incarnata (maypops) & P. lutea (yellow passionflower; both spp. are herbaceous) larvae of variegated fritillary (uncommon in both DC area & VA) & a rare sp. in the state of VA (the gulf fritillary a southern sp.); adult of the gulf fritillary (adults occasionally in the DC area but don't reproduce here I had one visit my garden in Hyattsville, MD for a couple of weeks in late summer one year)

*Wisteria frutescens (Atlantic wisteria) – larvae of long-tailed skipper (rare in both DC area & VA) & silver-spotted skipper

Note: **Ipomoea pandurata* (a perennial wild morning glory; herbaceous) attracted adults of pipevine swallowtail, spicebush swallowtail, & zabulon skipper in Illinois prairie study (www.shout.net/~ihilty/index.htm), but plant is not commercially available

*An annual vine or twining plant (sometimes perennial) that isn't available commercially but great to preserve some if you have it: *Amphicarpaea bracteata* (hog peanut) - larvae of silver-spotted skipper, long-tailed skipper (rare in both DC area & VA), & golden-banded skipper (may not be in DC area anymore & rare in VA); adult

Biennials

*Rudbeckia hirta (black-eyed Susan; biennial or short-lived perennial) & R. triloba (three-lobed coneflower; biennial or short-lived perennial) - adult

Annuals

- *Pseudognaphalium (Gnaphalium) obtusifolium (rabbit tobacco; primarily for naturalistic use) larvae of American lady; adult (pearl crescent & sachem visited this plant in Illinois prairie study: www.shout.net/~jhilty/index.htm)
- *Impatiens capensis (jewelweed; naturalistic use) adult

Herbaceous Perennial Plants Solely for Water Gardening

- *Pontedaria cordata (pickerelweed; suitable for small ponds) adult
- *Scirpus cyperinus (woolgrass bulrush in the sedge family; for large ponds) larvae of dion skipper (uncommon in the DC area specialized habitats; rare in VA)
- *Zizania aquatica (annual wildrice; for large wetland areas) larvae of broad-winged skipper (uncommon in DC area & common in VA specialized habitats)

B. CLEARWING MOTH CATERPILLARS (all woody plants except dogbane)

- *Crataegus spp. (hawthorn)
- *Diervilla lonicera (bush honeysuckle)
- *Lonicera sempervirens (trumpet honeysuckle)
- *Prunus spp.: P. maritima (wild plum) & P. serotina (black cherry)
- *Viburnum spp. (see listings under small tree & shrub sections above)

Note: Also various species of dogbane (*Apocynum* spp.), a herbaceous plant that is best for naturalistic use.

Developed by Brenda Skarphol, Curatorial Horticulturist © 2003

Updated 1/2003 (Native Plant Factsheet – Butterflies and Moths)

TTY: (703) 324-3988 **ح**